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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/249,642
Filing Date: February 12, 1999
Appellant(s): VU ET AL.

Jonathan O. Owens
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed December 16, 2005 appealing from the Office action mailed June 4, 2004. Furthermore, this Examiner's Answer replaces the Examiner's Answer mailed January 27, 2005, which is hereby vacated.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,373,821	Staats	04-2002

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4 – 8, 10 – 20, and 23 – 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Staats (US 6,373,821).

Regarding **Claim 1**, Staats teaches transmitting information from a source device at a predetermined rate comprising forming x number of first data blocks wherein each of the first data blocks contains n units of data (267 packets/frame; col. 6, lines 7+), and forming y number of second data blocks wherein each of the second data blocks contains m units of data (266 packets/frame) wherein m is not equal to n. Staats further teaches that each data stream contains these data packets in which 267 packets/frame of data is transmitted and sometimes 266 are need to be transmitted. This inherently teaches combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate, wherein the first data blocks and the second data blocks are of a same type and have the same characteristics (video data). As for the limitation of the x number of first data blocks are evenly distributed among the y number of second data blocks, the examiner believes Staats teaches this concept. In order to produce an IEEE-1394 serial bus standard, Staats teaches that the NTSC compatibility requires the data stream to equal 266.973, as discussed above. In order to achieve this data rate, uniformity in the data stream is inherent in the system of Staats. Staats discloses that after a certain number of x data blocks (267) are present in the data stream, a jump command includes the y data block

(266) into the stream. Therefore, to maintain a proper stream, uniformity of the data blocks must be present. Since the data stream is not restricted to a time period, over time the data stream will eventually repeat itself, thereby producing an evenly distributed x and y data blocks having first and second frames forming a repeating pattern within the data stream. Table 1 explains calculating a ratio of first data blocks to second data blocks to achieve the predetermined rate.

The applicant argues that the prior art fails to teach forming x number of first data blocks each containing n units of data, forming y number of second data blocks each containing m units of data and combining x number of first data blocks and y number of second data blocks into a data stream to achieve the predetermined rate and evenly distributing the x number data blocks among the y number of data blocks. Closely reviewing the Staats reference, the examiner still believes that the prior art teaches the applicants claimed limitations. Staats teaches in Table 1 equations used in determining when to transmit data blocks. Although Staats used 266.5 for example purposes, the examiner uses 266.973 (which is closest to 267) as discussed in column 6, lines 10+. Beginning in cycle 0, the data is given below:

		Cycles begins	A
267	(266.973)(0) + 2 = 2	0	0
267	(266.973)(1) + 2 = 268.973	267	.027
267	(266.973)(2) + 2 = 535.946	534	.054
	.		
	.		
	.		
	(266.973)(10) + 2 = 9671.73	2670	.27
	.		
	.		
	.		
267	(266.973)(35) + 2 = 9346.055	9345	.945
267	(266.973)(36) + 2 = 9613.028	9612	.972
267	(266.973)(37) + 2 = 9880.001	9879	.999

267	(266.973)(38) + 2 = 10146.974	10146	1.026
266	(266.973)(39) + 2 = 10413.947	10412	.053
	.		
	.		
	.		
267	(266.973)(75) + 2 = 20024.975	20024	1.025
266	(266.973)(76) + 2 = 20297.948	20290	.052

Staats uses 266.5 for convenience in showing when to include 266 and 267 data packets in the data stream. However, the examiner uses the targeted value 266.973. In this case, after calculating the first two values, the cycle repeats every 37th packet. As shown above when x=2, 39, 76, etc, the DCL jump command will include packet 266 and will repeat over time (see col. 8-col. 9). This reads on the limitation of calculating a ratio of first data blocks to second data blocks to achieve the predetermined rate (37:1) and evenly distributing x number of first data blocks among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and second data blocks within the data stream.

Regarding **Claim 2**, Staats teaches transmitting the data stream from the source device at the predetermined rate (col. 10, lines 57+ teaches the host is programmed to begin transmission of data at a desired cycle).

Regarding **Claim 4**, Staats teaches digital video data (col. 3, lines 30-33).

Regarding **Claim 5**, Staats teaches n, m, x, and y are integer values (x and y are each frame, and n and m are 266 and 267).

Claim 6 is analyzed and discussed with respect to Claim 1 (source and receiving devices are the host computer and camera).

Claim 7 is analyzed and discussed with respect to Claim 5. (See rejection of Claim 5 above.)

Claim 8 is analyzed and discussed with respect to Claim 2 with the further limitation of the data stream conforming to the standards of an IEEE 1394-1995 network (col. 3, lines 24+).

Claim 10 is analyzed and discussed with respect to Claim 8. (See rejection of Claim 8 above.)

Regarding **Claim 11**, Staats teaches the source and receiving device are coupled together within a network (see fig. 1).

Claim 12 is analyzed and discussed with respect to Claim 8. (See rejection of Claim 8 above.)

Claim 13 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

Claim 14 is analyzed and discussed with respect to Claim 5. (See rejection of Claim 5 above.)

Regarding **Claim 15**, Staats teaches an interface coupled to the controller and configured for connecting to a network (fig. 1, 12).

Claim 16 is analyzed and discussed with respect to Claim 8. (See rejection of Claim 8 above.)

Claim 17 is analyzed and discussed with respect to Claim 1. (See rejection of Claim 1 above.)

Claim 18 is analyzed and discussed with respect to Claim 5. (See rejection of Claim 5 above.)

Claim 19 is analyzed and discussed with respect to Claim 6 (see also col. 8, lines 15-16). (See rejection of Claim 6 above.)

Claim 20 is analyzed and discussed with respect to Claims 6 and 19 . (See rejection of Claims 6 and 19 above.)

Claim 23 is analyzed and discussed with respect to Claim 8. (See rejection of Claim 8 above.)

Claim 24 is analyzed and discussed with respect to Claims 6 and 11. (See rejection of Claims 6 and 11 above.)

Claim 25 is analyzed and discussed with respect to Claim 8. (See rejection of Claim 8 above.)

Regarding **Claims 28-31**, Staats teaches in order for the data stream to be transferred to a receiving device, it must comply with the IEEE-1394 Serial Bus Standard such that the receiving device may properly receive the data stream (col. 4, lines 57+). Therefore, a determination is made such that appropriate transmission is performed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 21 – 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staats.

Regarding **Claim 21**, Staats does not specifically disclose the predetermined rate is 29.97 frames per second. However, it is notoriously well known in the art to transmit signal conforming to standard television signals (29.97 frames per second). By performing this method allows for images

to be seen on a monitor desirably. (Official Notice) Therefore, it would have been obvious to one having ordinary skill in the art to have the predetermined rate to be 29.97 frames per second.

Regarding **Claim 22**, Staats teaches the x packets represent 267 packets and the y packets represent 266 packets as discussed in Claim 1, but fails to specifically disclose the plurality of second frames are 9336 frames and the plurality of second frames are 664 frames. Staats discloses a generic equation that allows a system, using only packets of 266 and 267, to achieve a desired frame rate. As described above, it would have been obvious to select 29.97 frames per second as a desired frame rate, since this is a notoriously well-known TV transmission rate.

Once the desired frame rate is known, it becomes a matter of arithmetic to determine how many 266 and how many 267 packets must be sent. This equation has a finite number of solutions. Any such solution would have been an obvious choice so as to achieve the desired frame rate.

Claims 26 and 27 are analyzed and discussed with respect to Claims 1 and 8. Although Staats teaches 267 packets and 266 packets as discussed in Claim 1, Staats fails to specifically disclose the first frames are 9336 frames and second frames are 664 frames. Staats discloses a generic equation that allows a system, using only packets of 266 and 267, to achieve a desired frame rate. As described above, it would have been obvious to select 29.97 frames per second as a desired frame rate, since this is a notoriously well-known TV transmission rate. By performing this method allows for images to be seen on a monitor desirably.

Once the desired frame rate is known, it becomes a matter of arithmetic to determine how many 266 and how many 267 packets must be sent. This equation has a

finite number of solutions. Any such solution would have been an obvious choice so as to achieve the desired frame rate.

Claim 32 is analyzed and discussed with respect to Claim 28. (See rejection of Claim 28 above.)

(10) Response to Argument

Regarding Claim 1, the applicant argues that prior art fails to teach x number of first data blocks are evenly distributed among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and the second data blocks within the data stream. The examiner disagrees and will explain how Staats can be read narrowly and broadly with respect to this claim.

Broadly speaking, Staats teaches the goal of a data stream to be compatible with NTSC requires that the stream equal to 266.973 (col. 6, lines 7+). Staats specifically teaches that the transmitter needs to send 266 packets and sometimes send 267 packets (to achieve the example value of 266.5, lines 7+). This is synonymous to the claimed first and second data blocks with n and m units of data. In order to send data with a proper synchronization (synonymous to the claimed "evenly distributed") of M = 266.973 (although 266.5 is used for simplicity purposes only), the data stream must send 267 packets with a few 266 packet in order to maintain proper stream (predetermined rate).

Narrowly interpreting Claim 1, Staats teaches, as disclosed in the rejection above, using Table 1 to determine when to transmit data blocks. Although Staats used 266.5 for example purposes, the examiner uses 266.973 (which is closest to 267) as discussed in column

6, lines 10+. As shown in the calculations above, after calculating the first two values, the cycle repeats every 37th packet. When x=2, 39, 76, etc, the DCL jump command will include packet 266 and will repeat over time (see col. 8-col. 9). This produces a data stream represented below which achieves the predetermined rate of 266.973:

yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy**X**yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy**X**yy
yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy**X**yyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyyy...

Wherein y= 267 packets/frame and X= 266 packets/frame.

This reads on the limitation of evenly distributing x number of first data blocks among the y number of second data blocks thereby forming a repeating pattern of the first data blocks and second data blocks within the data stream. Broadly speaking, "repeating pattern" could be interpreted as simply repeating using either a 266 or 267 packet.

As for the argument that Staats fails to teach calculating a ratio, the examiner disagrees. As indicated above using Table 1, Staats indicates that after calculating the first two values, the cycle repeats every 37th packet. Therefore, this produces a ratio of 37:1.

The applicant argues the same subject matter for Claims 6, 13, and 17 and is therefore, discussed above with respect to Claim 1.

The applicant argues, regarding Claims 28, 29, 30, and 31, that Staats fails to teach the predetermined rate is determined by a receiving device which receives the data stream. The examiner disagrees. To send the data stream to a receiving device compatible with IEEE-1394 Serial Bus Standard for transmitting information, the data stream must comply accordingly for the purpose of receiving the data accurately. Without this compatibility, the receiving device would be unable to interpret the information. Therefore, the examiner

maintains the position that Staats teaches the predetermined rate is determined by a receiving device.

Regarding Claims 26 and 27, the applicant argues that Staats fails to teach the data stream containing 9336 first frames and 664 second frames achieving a predetermined frame rate of 29.97 frames per second. As explained above, Staats teaches a generic equation using 266 and 267 packets for achieving a desired frame rate. Although not specifically disclosed in Staats, using the frame rate of 29.97 is notoriously well known in the art for standard television signals to utilize 29.97 frames per second for viewing images (Official Notice). It would have been obvious to include the predetermined frame rate in the generic equation for producing this standard television signal. The applicant uses 9336 first frames and 664 second frames to achieve the predetermined rate of 29.97. Staats discloses a generic equation that allows a system, using only packets of 266 and 267, to achieve a desired frame rate. As described above, it would have been obvious to select 29.97 frames per second as a desired frame rate, since this is a notoriously well-known TV transmission rate.

Once the desired frame rate is known, it becomes a matter of arithmetic to determine how many 266 and how many 267 packets must be sent. This equation has a finite number of solutions. Any such solution would have been an obvious choice so as to achieve the desired frame rate.

This is analogous to solving a money equation that uses only dimes (analogous to 266), and pennies (analogous to 267). Once you know how much money you need, there is a finite number of solutions. For example, to get 25 cents (analogous to 29.97), one could have 2 dimes and 5 pennies, or 1 dimes and 15 pennies. Either solution

would have been an obvious solution to select. Therefore, the examiner believes it does not change the scope of the invention since the outcome remains the same.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

JPM

for

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